



COVER SHEET

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The Politics of ADHD

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This essay offers a critical review of the problem we call "ADHD". In the first part of the discussion, the author presents an analysis of the literature surrounding Attention Deficit Hyperactivity Disorder. Adopting a lens informed by the work of Foucault, she teases out the medical and psychological models to show the interdependency between these otherwise competing knowledge-domains. She argues that as it currently stands the construct serves political ends and questions whether a diagnosis of ADHD is helpful - and if so, for whom? In the second part, the author considers what role schooling practices might play in the pathologisation of children and interrogates the ADHD phenomenon as a symptom of the pathologies of schooling. Graham concludes by suggesting how we might arrest the rising rate of diagnosis by thinking about difference in more inclusive ways.

The problem we call "ADHD"

Attention Deficit Hyperactivity Disorder or "ADHD" as it is now commonly known, is a modern phenomenon that has sparked virulent debate in recent years. An exponential increase in the rate of diagnosis and prescription of psycho-pharmaceuticals has occurred in Western developed nations; most noticeably in the US and Australia. In the research literature, "ADHD" manifests as either a medical, psychological or social construct and controversies result because of an intellectual "territoriality" (Bryant et al., 2003), characterised by struggles over whose knowledge is of most worth. Here I want to look at these debates as discourses that lay claim to certain truths about childhood behaviour. My thesis is that there are competing discourse constructs in the literature around Attention Deficit Hyperactivity Disorder but for reasons political, these exist cooperatively; that is, they rely on an/other in order to Be (Butler, 1997).

Troubling ADHD: Emergence or Convergence?

There is an implicit argument in education research that the "proper" use of Foucault is to undertake a historical tracing of the emergence of problem/s through genealogy. However, I worry that attempting to problematise the already contentious concept of Attention Deficit Hyperactivity Disorder in this way is akin to pointing at the faulty workmanship in the open gate - after the horse has already bolted. I am not interested in arguing whether fidgety, distractible, active children have cognitive deficits arising from neurological anomalies in their brains and thus, whether ADHD is real or not. Instead I ask: are current approaches to the problem that we call "ADHD" the *best* we can do?

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To do so, I assess what is offered by the two main players in the game. I look at what they say *and* what they offer to each other - as well as to the institution of schooling. In what follows, I argue that the concept of Attention Deficit Hyperactivity Disorder reflects a combination of medical and psychological knowledges. This brokers an awkward alliance between the fields of medicine and psychology, which has served as a condition of possibility (Foucault, 1977) for the expansion of the concept of child behaviour "disorder".

There is a silent partner in the industry surrounding the "disorderly" child however; one which remains conspicuously absent from investigations into the rise and *rise* of ADHD diagnoses and the psycho-pharmaceutical control of children. That partner is the school. In this way, "ADHD" effects a menage-a-trios; a prism of power that has three locus points each managed by medicine, psychology and schooling. And it is between these points, these angles of scrutiny within a tight network of power, that the colourful child comes to attention. If not located whilst still within the not-so-private-family-realm (Donzelot, 1997), such children come to be identified upon their entry into the public-realm though their enrolment in the school (Neophytou, 2004), the structural arrangement of which functions to provide observers with 'a single common plane of sight' (Rose, 1990, p. 132).

I want to argue here that the convergence of collusive yet competing knowledge-domains around particular kids displaying particular kinds of behaviours serves to underpin a flawed concept, benefiting some more than others. This convergence has worked to: first, refine schooling as a site for disciplinary power via the "ab-normalisation" of child behaviour; second, to subordinate and colonize the professional knowledges of teachers; and finally, to provide schools and teachers with an "e/scape-goat" - an excuse for schooling failure in the form of the sick but somehow, bad and therefore, *punishable* child. But first, it might pay to consider how this convergence has allowed for some interesting and paradoxical relationships with questionable benefit for the child who comes to be caught in the 'net-like organization' formed (Foucault, 1980, p. 98).

A Marriage of Convenience: Medicine and Psychology

Attention Deficit Hyperactivity Disorder is one of the most widely researched topics today with scholarship spanning across many disciplines. Of the multiple ways of looking at the lexical label (Mehan, 1996) that is "ADHD", two paradigms hold court: medicine and psychology. Whilst there is some overlap between the two, to categorize broadly, the medical model posits that the excessive display of a particular constellation of behaviours is said to reflect neurological dysfunction in the frontal region of the brain, an area thought to be responsible for inhibition and attentional control (Barkley, 1997; Tannock, 1998; Holmes, 2004).

Medicine-Diagnosis-Medication

General acceptance of the medical model has led to an increase in prescription of psycho-pharmaceuticals to children and young people. This applies particularly to the substances claimed most effective, methylphenidate and dexamphetamine sulfate - even though researchers still do not know exactly what these substances *do*. Evidence as to the side-effects is mounting though and recently this prompted the US Federal Drug Administration's Drug Safety and Risk Management advisory committee to recommend "black-box warnings" (Pirani, 2006).

However in March their pediatric advisory panel challenged the recommendation, opting instead for "clearer" labels 'so that people can understand them' (Bridges, 2006a). These species

of language games suggests that the “problem” of stimulant medication relates not to what is contained in the packet, nor in how it is being prescribed but instead, with those administering the contents. Here the blame comes to rest with the parent who, even when following medical advice, still finds themselves at the pointy end of the media-blame game (Myler, 2006).ⁱ

Meanwhile, the US Federal Drug Administration has just approved a stimulant medication patch for use by young children who find it difficult to swallow pills (Bridges, 2006b; Heavey, 2006). Whilst these patches may help to cut out the inept middle man, the medication they deliver is no different. It is surely worrying that when the ‘most comprehensive scientific analysis of the drugs to date has found little evidence that they are safe, that one drug is more effective than another or that they help school performance’ (Otto, 2005, p. 1), governments are playing labelling games similar to those played by/with other multinationals, such as the tobacco companies.

Stimulating children/Stimulating economies?

Questions regarding the involvement of pharmaceutical companies and their ongoing financial support of lobby groups were first raised over 30 years ago (Conrad, 1975).ⁱⁱ Lloyd and Norris (pp. 510-512) again questioned ‘the role of the drug companies’ in the rising diagnosis of behaviour disorder and prescription of psycho-pharmaceuticals to children in 1999. A year later, Conrad and Potter (2000, p. 567-568) drove the point home by describing how the redefinition of ADHD as a lifetime disorder has both expanded and extended the market for psychostimulant medications, ultimately benefiting the pharmaceutical companies who produce them. However despite widespread criticism, consumption of stimulant medications and the numerous other drugs continually being developed for the ADHD market, is still on the rise - as are company profits (Schmitt, 2000). At the same time, the side-effects of these drugs are causing concern, even prompting class actions (Schmitt, 2000; Banks, 2006), yet the inaction of government is astounding. In relation to the side-effects of stimulant drugs, FDA officials did acknowledge that there was a ‘complete absence of similar reports in children treated with dummy pills’ during clinical trials (Bridges, 2006, p. 2). The recommended “black-box warnings” were eventually bypassed however because the FDA maintained that it could not point to a ‘definitive link between reported psychiatric events and the use of stimulant drugs’ (Bridges, 2006, p. 1). This issue of “definitive links” is an interesting one and worth teasing out here.

Define “definitive”...

Despite being unable to point to a *definitive* link between specific biological regions or neurologic components and either (1) the so-called “symptomatology” of ADHD *or* (2) what psychopharmaceuticals do and how (Hynd & Voeller, 1991; Riccio & Hynd, 1993; Swanson et al., 1993), the medical model *still* posits neurobiological dysfunction as the cause for behaviours said to indicate “Attention Deficit Hyperactivity Disorder” *and* psycho-pharmaceuticals as the solution (Kessler, 1998).

The marketing practices and political influence of pharmaceutical companies, whilst questionable, do not alone explain *why* psychostimulants are the front-runners in response to the problem we call “ADHD”. Ultimately, there must be market take-up for such tactics to be successful. The dominance of the medical model and its insistence upon neurobiological dysfunction and medication as the solution undoubtedly contributes. Note here that stimulant medication production is increasing internationally for *two* fundamental reasons. First, there is a documented increase in prescription rates – so, the number of prescriptions being handed out by

doctors are on the rise. In itself, this is not news. However, the second reason for the increase in production of stimulants is not often the topic of discussion.

Defined daily doses – the amounts taken per individual per day - are *also* rising (Davis et al., 2001). This means not only that more individuals are being prescribed psychostimulant medication as per my first point, but that the amounts being consumed are increasing. In the face of poor response to stimulant medication, some doctors are upping the dosage (Rushworth, 2006). In addition, medical practitioners are combining anti-depressants and anti-psychotics with stimulant medications. The majority of these drugs have not been formally approved for use in children by regulatory authorities (Robotham, 2004). Following action in the UK and US, the Australian Government have issued cautions regarding the use of SSRI antidepressants in children (Robotham, 2004). The result in Australia however is that some children have had to enter detoxification centres. Incidentally, many emerge minus the both the side-effects and diagnosis with which they entered (Rushworth, 2006).

But, if psycho-pharmaceuticals *do* cause significant side-effects, as corroborated by parent reports, research findings and warnings by regulatory authorities, then why the increase in their use? Why the take-up? In the following discussion, I consider why it is that drugs have achieved their preferred status and question what other contributing factors might be involved.

The Allure of Medicines

Stimulant medication is *thought* to increase the level of dopamine and norepinephrine between the synapses or neurotransmitters of the brain (Whalen & Henker, 1998), or to increase blood flow to areas of the brain believed responsible for executive control (Holmes, 2004). However, difficulties in pinning down neurological involvement (Hynd & Voeller, 1991; Riccio et al., 1993; Levy et al., 1997), translate to similar problems in working out not only what stimulants do and how they do it, but also in determining what long-term effect they may have upon developing brain chemistry. Despite the lack of definitive explanation or conclusive proof with regards to either ADHD aetiology or the function of stimulant medication (let alone the long-term educational or health effects, see discussion in Levy, 2001, p.47), the production of psychostimulants has soared since 1990.

In the US, prescriptions for Ritalin 'rose dramatically in the early 1990s and have since levelled off at approximately 11 million per year. In comparison, amphetamine prescriptions, primarily Adderallⁱⁱⁱ, have increased dramatically... from 1.3 million in 1996 to nearly 6 million in 1999' (see Statistics on Stimulant Use in Gaviria, 2001). Although usage in the UK was more moderate to begin with a significant rise has been noted there too (Lloyd & Norris, 1999). Australian statistics present a slightly different picture however, because dexamphetamine has been subsidised under the Commonwealth Government Pharmaceutical Benefits Scheme and this has influenced usage patterns (Prosser & Reid, 1999). Still, the dramatic increase in the prescription of stimulants in Australia, coupled with a 'disparity in the number of prescriptions for dexamphetamine sulfate dispensed in different parts of Australia' (Mackey & Kopras, 2001, p. i) has not gone unnoticed, triggering a number of Parliamentary inquiries. The most recent report published in 2001 attests that,

...in 1991, less than 10 000 prescriptions were dispensed for dexamphetamine sulfate. In 1998, nearly 250 000 prescriptions were dispensed for the same drug, an increase of 2400 per cent. Over the same period, prescriptions dispensed for Ritalin increased from 13 398 to 96 582, an increase of 620 per cent. (Mackey & Kopras, 2001, p. 4)

Despite the controversy surrounding stimulant prescription rates in Australia, Ritalin was added to the Pharmaceutical Benefits Scheme in 2005 to 'provide patients with a choice of two PBS-listed drugs for ADHD [costing] the PBS between \$1.4 and \$1.7 million each year (Miranda, 2005, p. 1). Just seven months later, Pirani (2006) reports for *The Australian* that:

Prescriptions for Ritalin increased tenfold after the drug was listed on the Pharmaceutical Benefits Scheme in August last year, reducing the cost from \$49 to \$29.50, or \$4.70 for concession card holders. More than 5800 prescriptions were written for Ritalin in January this year, compared with 523 in August last year. (Pirani, 2006, p. 13)

It will be interesting to see whether the increase in Ritalin prescription is accompanied by a decrease in those for dexamphetamine sulfate or whether this move just fuels consumption overall. Similarly, it will be interesting to see what happens to the profit margins of the respective producers, Novartis and Sigma Pharmaceuticals, as a result.

Although the statistics may indicate otherwise, prescription of stimulant medication *is* tightly controlled in Australia. Only paediatricians and psychiatrists can prescribe stimulants and even then, only through an authority/no repeat prescription.^{iv} However, general practitioners can prescribe SSRI and tricyclic antidepressants to children and prescription rates of this class of drug are not monitored. As a result, it is unclear how many children are currently medicated with powerful psycho-pharmaceuticals, such as Prozac and Zoloft, medications that can also affect developing brain chemistry. Unlike the US, prescription medication cannot be advertised in the Australian media. Whilst this may serve as a check on the prescription of stimulants, other public policies work to subvert that aim (Elliot, 2000). For example, counselling support services can cost between AUD\$100-\$160/hour, yet a months supply of stimulant medication can be obtained for as little as \$4.70 (Pirani, 2006).

In addition, medical services are subsidised by Medicare (i.e. paediatric/psychiatric consultations) rendering a consultation fee of \$120 eligible for a cash rebate of around \$80. Counselling services do not attract the same government subsidies. Such fiscal arrangements further push parents towards the medical model, particularly those at lower socioeconomic scales, arguably influencing their acceptance of medication as the "treatment" for problematic behaviour. In Australia at least, the disproportionate rate of stimulant prescription by socioeconomic status and locality (Prosser & Reid, 1999; Mackey & Kopras, 2001), is undoubtedly influenced by public policy.

At the same time, the pressures of economic rationalism are affecting how psychiatrists deal with the children and parents who arrive in their practice. This is particularly the case in the US where governmental control via "managed care" mandates the quicker, cheaper solution of a drug instead of the longer process of psychotherapy, family counselling or looking for/at other contributing factors (Manne, 2001).^v In Australia, social security benefits that privilege medicine do the same job, albeit more subtly. Children whose behaviour can be described as highly distractible, impulsive and thus, *self-injurious* can also qualify through government welfare agencies for health care benefit/concession cards. These reduce the cost of medication but have *no* bearing on the cost of support services, such as counselling or speech therapy. Interestingly, while "ADHD" is not recognised as either a learning difficulty or disability by some public institutions of education (Elliot, 2000; Graham, 2006a), the behavioural characteristics (or "symptomatology") consistent with a diagnosis of ADHD *are* recognised by institutions of public health and thus, systems of social security. Accordingly, medical "treatment" of these behaviours

and the children who display them is rendered more credible, affordable and accessible than other options.

Australia: Running on Ritalin?

Let us turn to look more closely at the case of Australia. Whilst it is acknowledged that there are no reliable measures of prevalence (Elliot, 2000), incidence is estimated between 3-6% of children. However, statistics from the 1997 National Mental Health and Wellbeing Survey are more worrying, estimating a prevalence rate of 19.3% in boys between the ages of 6-12 years and 13% of children between 6-14 years (Sawyer et al., 2000). Gender discrepancies are also noted by Davis et al. (2001) as a growing population of boys between the ages of 5-14 diagnosed with ADHD has contributed to a sharp rise in disability and severe restriction rates. Research by Prosser and Reid (1999) which looks at data from both the US and Australia has shown that ADHD diagnosis and prescription rates concentrate at two points: low income and high unemployment.

At the state level, Western Australia has noticeably higher prescription rates than any other state in Australia (Rushworth, 2006).^{vi} The disparity prompted a Parliamentary Inquiry which weakly concluded that since prevalence rates are estimated between 3-6% of children, medication may even be under-prescribed for ADHD in Australia and that higher prescription rates may reflect improvement in diagnostic practices (Mackey & Kopras, 2001). This is a view that appears to be put forward by paediatricians more than psychiatrists (see Rushworth, 2006), for as Levy (2003, p. 91) points out, paediatricians are responsible for the bulk of methylphenidate prescription. This may well be because their shorter consultation times prevent the deeper analysis required to consider other contributing factors (Levy, 2003). In any case, *someone* has been busy. Australia is now third highest in stimulant medication use behind Canada and the US (Mitchell, 2004). Meanwhile, Diller (1998) notes that Australia is the only nation that appears to be keeping pace with the US. This is not something of which we should be proud.

Medicine-ADHD-Psychology

Some representatives of the psychological domain express concern that drugs used in the treatment of ADHD are over-prescribed and have the potential to cause long-term side effects. Elsewhere however, there are others who contribute to the problem by 'diagnosing ADHD in young children using unacceptable diagnostic criteria, inadequate psychometric evaluations and recommending psychostimulant medication despite having no medical training or authority to do so' (Thomas, 2006, p. 1). The research literature reflects similar ethical and professional tensions. On one hand, there are those psychologists who acknowledge the dominance of the medical model but at the same time attempt to subvert it in order to protect the interests of their profession (Atkinson & Shute, 1999). Then again, there are others who support the medical model in order to preserve space for a psychological perspective (Kos & Richdale, 2004).

Such strategies are tactfully deployed because, in the end, the medical concept of "Attention Deficit Hyperactivity Disorder" provides psychologists with a ready-made market. It is difficult for psychological practitioners to challenge the medical treatment of a *medical* concept without damaging public acceptance of that concept and thus, the need for intervention *via* associated psychological services. Hence, psychologists may comment at appropriate intervals that stimulant medication is over-prescribed but generally practitioners and academics of psychology alike stop short of challenging the concept itself.

Questions are being asked about the involvement and interests of “professionals”, however I would argue, not often or loudly enough. In the same newspaper article in which he criticises psychologist Therese McHugh for her assessment of ‘youngsters brought... by stressed out parents frustrated by their children’s behaviour’, reporter Hedley Thomas (2006, p. 1) still manages to condemn parents, neglecting to consider how many came to believe their children might be “disordered” in the first place (see Harwood, 2006). The dubious public relations practices of psychologists who target their local area pre-schools and daycare centres with flyers offering parenting programs, ‘aimed at the prevention and treatment of behavioural and emotional problems in children between 2 and 12 years’ (Nurseryland, 2005, p. 1), seem to fly under the media radar.

Like so many others in the media, Thomas (2006, p. 1) appears to consider the influence (and medicalisation) of schooling as a secondary factor and a distant one at that:

But instead of a rigorous and comprehensive check if the children were experiencing difficulties because of problems at home or elsewhere, Ms McHugh, in most cases, diagnosed ADHD or ADD.

Such an “elsewhere” or secondary focus is dangerous as it assists to remove schooling from the field of investigation into the reasons for “disorderly” behaviour and the role of schools in the increase in diagnoses of “behaviour disorder”. The irony is that stimulant medication, by far the most prescribed medication in relation to ADHD, operates mainly during school hours. In order that the child can eat and sleep, the medication must be carefully titrated, so that it will wear off by late afternoon. Parents have to deal with the rebound effects of that medication which, incidentally, can cause behaviour far worse than that for which the child was originally medicated (Carlson & Kelly, 2003). Also, to offset the side-effects (such as growth retardation) specialists sometimes advocate “drug holidays” (Green & Chee, 1997). These drug-free periods are usually during weekends and school holidays – times when parents (mostly mothers), who have been conditioned to believe that their own knowledge is inferior to that of the “expert”, and that many normal behaviours of childhood are not only predictors of adult psychopathology but somehow caused by their own inadequate parenting and faulty heredity, continue the battle confused and alone (Singh, 2004). In short, the claim that parents medicate children for their *own* benefit is very short-sighted.

Demonising Discourses

The medicalisation of behaviour and administration of Ritalin promises absolution through a discursive shift: from bad mothers to bad brains. However, as Singh (2004, p. 1204) points out the ‘brain-blame narrative contains, supports and reconstitutes opportunities for mother-blame’. The current furore concerning the over-prescription of stimulant medications in Australia has come full circle - bypassing teachers, schools, doctors and even psychologists like McHugh who is currently being shielded by The Queensland Board of Psychologists (Thomas, 2006). Scrutiny eventually returns to the ultimate care-giver who has authorised and administered medication to their child (see Bridges, 2006a). This eternal return is made possible via the discourse/s of the human sciences (Derrida, 1967), even those taken up in opposition to the ADHD construct (Halasz, 2001), through an obsessive focus on issues of anxious child-mother-child attachment. This is, as Levy (2003, p. 246) concedes, an unfortunate habit of psychiatrists who ‘have often been very ready to preach to mothers about their deficiencies’.

Those who accuse parents of seeking diagnosis because a medical label will relieve them of responsibility or blame for their child's behaviour (Smelter et al., 1996), neglect to consider the forces behind that decision (Manne, 2001; Singh, 2002; 2004). Neither is it ever acknowledged that parents cannot affect their child's behaviour beyond the school gate – in *any* other way. Schools that threaten formal exclusion of children unless they are medicated seldom make the front page of newspapers. Schools that engage the services of guidance officers as quasi-diagnosticians, who suggest to parents that their child would most likely be diagnosed with ADHD *if* taken to a paediatrician, do not seem to get investigated by investigative reporters – perhaps because institutions of education can mount a resistance that far outdoes anything the Queensland Board of Psychologists may do for McHugh (Thomas, 2006). Parents make easy targets and stories from parents like myself are too long and complicated and messy to make good headlines. From the perspective of a parent who has been at the “ADHD” coalface, I can relate to much of what is said by the participants in Singh's (2004) study – however unscholarly reference to my own experiences may appear.

As a parent who has actively fought the ascription of a label of ADHD to my child, I can report that there is at least one other trick pulled that pulls on mother love/mother guilt (Singh, 2002; 2004). This the accusation that by *not* accepting Ritalin, Dexamphetamine, Strattera or Zolof, you are damaging your child by not giving them the medical treatment they “need”. As Singh so eloquently puts it, ‘Unfortunately for mothers, the binarism is, finally, false, and promises of absolution are simply seductive rhetoric’ (Singh, 2004, p. 1204). More research is needed into the pressure that schools, teachers and professionals place on parents to medicate their children and the motivating factor that fear of school failure has upon them. We need to tap into parent perspectives and try to understand why they make the decision to seek “professional help” and/or medicate their child. Most importantly, we need to ask whether they still would - *if* their children were better resourced, supported and understood in schools. The question I ask here, one that is seldom asked in relation to the “problem” of ADHD, is not just *who* benefits, but who benefits most?

The (Dis)Illusion of Medicine/s

Psychostimulant medications are marketed as having a “paradoxical effect” upon individuals exhibiting behaviours consistent with those making up the diagnostic triad for ADHD: hyperactivity, inattention and distractibility (APA, 1994). However, research has since shown that psychostimulant medication affects *all* individuals with some level of improvement in concentration and energy (Swanson et al., 1993; Purdie et al., 2002). The variable *now* appears to be the degree of effect. Most problematically though, psychostimulant medication can have severe side-effects; including appetite suppression, insomnia, teeth grinding, tics, tachycardia, emotional instability, growth retardation, drug-induced psychosis and more (Levy, 1993; Purdie et al., 2002). Also any so-called “therapeutic” effect is temporary (Selikowitz, 1995).

Even the nature of that “therapeutic” effect is the subject of debate, as comprehensive research has demonstrated that the ‘estimated effect on *behaviour* is much larger than the estimated effect on *achievement*’ (emphasis added, Swanson et al., 1993, p. 156). Despite the research evidence, some proponents of the medical model make claims to the contrary:

In a child who is receiving an appropriate medicine, all other forms of treatment, such as educational and psychological intervention, will be more effective. These medicines help the child's brain to function like the brains of other, normal children; they do not sedate

the child. Most, but not all, children will be helped by medication. It is important to note that these medicines offer treatment, not a cure. This means that their effect on behaviour lasts only as long as the medicine remains in the child's body, although any skills the child has learned will persist. (Selikowitz, 1995, p. 151)

This kind of literature is marketed to parents who may make the decision to medicate because they believe it will help their child by removing "behavioural barriers" possibly affecting their learning progress. As Teeter (1991, p. 5) acknowledges however, 'neurochemical studies consistently show that while medication reverses hyperactivity, learning deficits persist'. This was still the case when Purdie, Hattie and Carroll conducted a meta-analysis of interventions in 2002. They concluded that 'the present findings do not indicate that such flow-over effects to learning or achievement occur' (Purdie et al., 2002, p. 88) and that the major impact of medication was on improved behaviour, more benefiting teachers and parents than the child.

Against solid research evidence, arguments that advocate the medication of children for their educational or learning benefit (Hynd et. al., 1991), just do not stack up. The question begs then: "therapeutic" for whom? If medication is effective in reducing behavioural "symptoms" as indicated in the literature and relatively ineffective on learning, then what is the medication of children and young people *really* doing? What is the goal? If pharmaceutical suppression of behaviour does not translate to better academic achievement, as one might assume it would, then *what* exactly is medication achieving and for *whom*?

Indeed, stimulant medication is only found to be "effective" (that is, when medication acts to suppress problem behaviours) in about two thirds of children diagnosed with ADHD (Swanson et al., 1993). With those children who *do* respond "positively", the side-effects require that dosage be carefully regulated, so that the effects are sufficiently dulled to allow the child to eat and fall asleep at night. Once the drugs wear off, little Johnny or Jenny (and their parents) are right back to where they were – at the unacceptable end of the behavioural continuum (Levy et al., 1997). Interestingly, this is where it appears the complicated interdependency between medicine and psychology comes into play and where the medical and psychological paradigms diverge only to (re)converge.

Coming together in the "Seen" of the School

As discussed, psychological paradigms generally defer to the medical explanation of neurological dysfunction and the prescription of psycho-pharmaceuticals as a "first-line approach" (Wallace, 1999). However, because medication has failed to provide a solution to the "problem" it was meant to solve, psychologists have been successful in arguing for a multi-modal approach to the management of ADHD through behaviour modification techniques and programs (Atkinson & Shute, 1999; Wallace, 1999). The ensuing reciprocal relationship that has developed between medical and psychological practitioners has been the *condition of possibility* (Foucault, 1977) for the expansion of the concept of child behaviour "disorderedness" - for a protracted war between the two paradigms would weaken rather than strengthen claims on *both* sides.

This interdependency, which I depict in Figure 1 below, is of mutual benefit to the medical and psychological fields. Despite research that demonstrates medication effects only behaviour and has relatively no impact on the higher-order and longer-term processes of learning (Hynd & Voeller, 1991; Teeter, 1991; Swanson et al., 1993; Purdie et al., 2002), the dominant "reach before you can teach" ethos (Green & Chee, 1997) allows medical practitioners to acknowledge the psychological perspective, whilst giving precedence to the medical model. By the same token,

having developed a working relationship with medical practitioners through multi-modal treatment arrangements, and by virtue of the increasing presence of the “professionals” in schools, psychological practitioners have secured a legitimate place in the space surrounding the “behaviourally disordered” child.

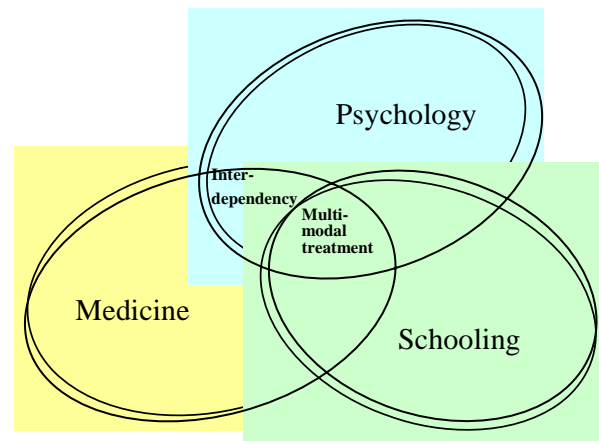


Figure 1: ADHD & Reciprocity

The psychological literature features compelling arguments that behaviours said to be consistent with the ADHD diagnostic triad can be influenced by extrinsic factors outside the child’s control, such as environment (Pellegrini & Horvat, 1995; Christian, 1997; Levine, 1997; Panksepp, 1998). In addition, there appear the other “usual suspects” - familial and socioeconomic status, maternal levels of education, abnormal child/mother attachment, abuse, pre and postnatal trauma - the literature on which is too numerous to list (see discussion in Whalen & Henker, 1998). Accordingly, many psychologists argue for a psychosocial understanding of problematic behaviour - *however* - there appears no escaping the suppression of those same symptoms with ‘active medication management’ (Levy, 2001, p. 45), the occurrence of which privileges medical conceptualisations of ADHD and the involvement of the neurological system.

ADHD & The Psychologies

The fundamental difference between medical and psychological models lies in their respective theorisation of agency, reason and control with an effect towards perceptions of responsibility and culpability. The medical model appears to accept the “disordered” child as having little or no control over their actions. The psychological model, on the other hand, is dependent for its very existence on the paradoxical assertion that the child *can* exert or learn self-control. Difficult behaviour is interpreted as misdirected behaviour (Atkinson & Shute, 1999) or seen as behaviour that is gaining a pay-off which can be fixed by re-arranging the terms (Wallace, 1999). On the side of the medical model, there is the assertion of a lack in the *faculty* to control (1994; Green & Chee, 1997; Holmes, 2004), which results in a view of the child as not entirely responsible for their actions.

However, psychological concepts rely on the operation of this faculty (Ollendick & Hersen, 1998; Powell & Inglis-Powell, 1999; Wallace, 1999), and this constitutes the shaky epistemological

base upon which psychological interventions (behaviour management/modification) rest. I say *shaky* because if, as Atkinson and Shute (1999, p. 124) concur, 'the generally accepted premise is that the medical model is the appropriate one' and ADHD and other disruptive behaviour "disorders" are behavioural reflections of neurobiological anomalies affecting a child's ability to self-regulate, then where does that leave behaviour modification techniques that require self-regulatory abilities? Indeed, psychology is forced to subordinate to medicine when faced with this problematic:

...diverse psychosocial and behavioural treatments have been applied to ADHD... parent training, and family counselling, social skills training, academic remediation, cognitive-behaviour modification, biofeedback, insight therapy, and even exercise regimens. Cognitive-behavioural approaches appeared especially promising, given the pervasive self-regulatory deficits of ADHD children, but the outcome data have been disappointing... In the vast majority of controlled studies, non-pharmacological approaches pale relative to stimulant treatment, and the question of whether any psychosocial treatment makes an additive contribution remains open (Whalen & Henker, 1998, p. 200).

Several major studies have failed to demonstrate that psychological interventions (intensive or otherwise) provide any benefit over medication alone (Whalen & Henker, 1998; Levy, 2001; Hechtman et al., 2004).^{vii} This same research shows that multi-modal treatment models, whilst generally considered the best option in the management of ADHD (Atkinson & Shute, 1999; Elliot, 2000), do not live up to either expectation or promise. This may be because multi-modal models tend to privilege psychological "treatments", rather than educational (as in pedagogical) interventions.

Complicated response-cost self-management token-economies are not only difficult for teachers to run in conjunction with their always-already crowded curriculum and teaching responsibilities, but such practices do *nothing* to address a child's learning needs when, for example, they may have difficulty understanding abstract or complex instructions. In addition, psychological services are difficult to access. Public services are plagued by long waiting lists and private services are prohibitively expensive (Bussing et al., 1998; Gifford Sawyer et al., 2004).

Given that the effectiveness of psychological interventions is equivocal, plus that they are hard to access and expensive, it is no small wonder that many parents feeling the pressure resort to medicating their children, despite the overwhelming majority calling for more support (Gifford Sawyer et al., 2004, p. 1362; Singh, 2004). However, I want to stress that their call for support does not simplistically mean that contemporary parents are less competent than those of previous generations, that we have a much greater number of "disordered" children than a decade ago or that we have an "ADHD epidemic" on our hands. Nor should it be rearticulated as such.

Newspeak or Psy-Fi? Calming the War of the Worlds...

The change to social structures in individualised Western societies, culminating in the demise of the extended family, kinship and shared responsibility for child rearing, is seldom recognised for the disabling impact it has upon parents (Goward, 2006). Neither is it readily acknowledged that fast capitalism, whilst producing healthy GDP and current account figures, has been extraordinarily uncondusive towards social health and wellbeing (Pusey, 2003). Public policy informed by a neoliberal political rationality borrowed from the US and UK (Beeson & Firth, 1998), has forged a 'new Australia, with its culturally and linguistically diverse population, its

volatile economy characterised by new and spatialised stratifications of wealth, and new pathways from school to work, community and civic life' (Luke, 2003, p. 103). However, the effects of the new economies upon family life are generally ignored. Parents, particularly mothers (Manne, 2005), are criticised for working more and having less time for their children (Devine, 2006). In many cases though, mothers have been forced into working longer for less (Pusey, 2003), with the traditional absence of working fathers translating to greater restrictions on their flex-ability to (co)parent, in a way many modern families would like (Singh, 2003; Goward, 2006).

Enter psychology. The schism arising between the desired and the actual is what Foucault (1980b, p.107) maintains, 'rendered the discourse of the human sciences possible'. In other words, the psychologies help to effect a shift in focus, diverting public attention 'from a structural economic and national problem' by reconfiguring it as an 'individualistic and personalised problem' (Marshall, 1997, p. 5). Within the disciplinary institution of the school, the operation of such discourses privileges a particular constituting field of knowledge which acts to legitimize and bring into operation the practices that derive from them (time-out, detention and suspension), whilst simultaneously disguising their exclusionary logic.

Medication & Behaviour Management as "perfecting technologies"

Despite the dominance of the medical model, the literature surrounding ADHD by no means reaches consensus. Medical researchers have failed to find a comprehensive link between the so-called "symptomatology" constituted by the behavioural descriptors associated with ADHD and any core biophysiological or neurophysiological region (Riccio et al., 1993). This has encouraged some in the field of psychology to focus on the validity of the behavioural descriptors (Atkinson & Shute, 1999; Kos & Richdale, 2004) and the psychological aspects of "disorder". Semantics aside, in relation to "ADHD" the fields of psychology and medicine come together on one crucial point – in the main, the focus remains on the "problem child".

Whether their behaviour is thought to be influenced by neurological, biological or environmental factors, both medicine and psychology offer perfecting technologies (Baker, 2002), either pharmaceutical or cognitive-behavioural means of making adjustments to the child. I have illustrated their origin and function, as well as their beneficial effect for the school, in Figure 2 below. Medication and behaviour modification are of particular appeal to institutions of schooling for their use has the effect of obscuring the underlying educational, structural and sociopolitical forces affecting the child (and his/her family and community). In effect, they assist in naturalising the existing order of things.

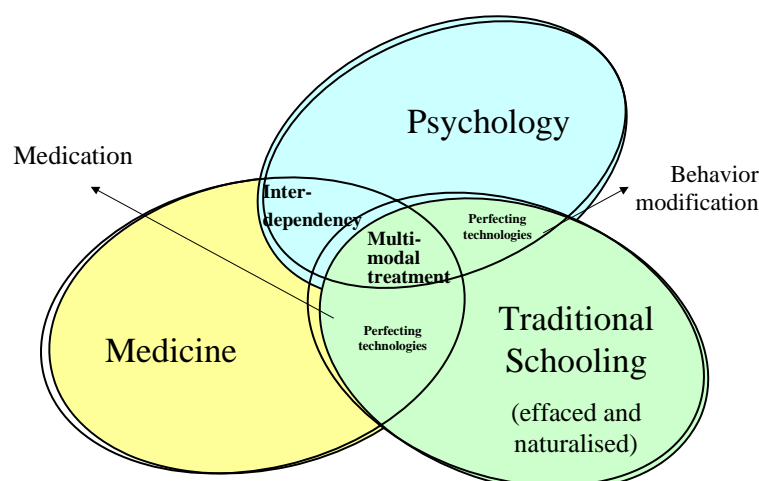


Figure 2: Adjusting the "disorderly" child and obscuring the pathologies of the school

Both medication and behaviour modifying “interventions” can function to shift the focus away from what might be wrong with *schooling* to centre only on what is “wrong” with the child. This can have devastating effects for the children who come to be described in such ways (Graham, 2007), leading to their enrolment in withdrawal-mode behaviour modification programs, alternative site placement, suspension and exclusion (Bouhours et al., 2003). Other scholars in education research observe the danger in medicalising the problem of disruptive behaviour in schools because this may cause educators to see such behaviour as ‘strictly biological and outside their expertise’ (Prosser et al., 2002), or as a dispositional problem (Thomas & Glenny, 2000) not related to their choice of pedagogy or ability to engage children in learning. In this way, the view of teacher as technician (Lingard et al., 2000) is compounded and opportunities to better draw on “disruptive” pedagogies – pedagogies that disrupt the construction of deficit student-subjects to produce “possible” as opposed to “impossible” learners - are lost.

As a result of the interrelated expansion and acceptance of the concept of child behaviour “disorder”, there has been a convergence upon the “disorderly” child by the medical and psychological knowledge domains, within and around the domain of the school. Putting it bluntly, stimulant medication offers schools with a chemical cosh with which to sedate the aberrant child (Slee, 1995). However, schools, teachers and guidance officers cannot as yet prescribe medication. Thus, despite the dominance of the medical model, in the schooling context, behaviour modification techniques informed by the psychological model prevail.

Research shows educational interventions to be more successful in responding to problematic behaviour in schools (Purdie et al., 2002). However, psychological conceptualisations *may* find fertile ground within the schooling arena because they resonate with the very rationale of the educational process which, as Usher and Edwards (1994, p. 2) maintain, is ‘founded on modernity’s self-motivated, self-directing, rational subject, capable of exercising individual agency’. Or perhaps psychology predominates because, much like psychiatry provided the courts with an indictable subject/object (Foucault, 1975), psychology provides the disciplinary institution of the school with a *punishable* subject/object: one whose presence functions to preserve the existing order of things.

What about the problem we call “ADHD”?

So far in this review I have painted a broad overview of the literature around Attention Deficit Hyperactivity Disorder and pointed to where the gaps are or, at least, where I think the logic is lacking. Despite there being different ways of knowing childhood “disorder,” the convergence of collusive knowledge-domains has resulted in a generic notion of ADHD: an anonymous conflation that almost anyone can claim to “know”. It is this generic notion that has permeated public discourse and captured the social imaginary. The baggage surrounding this notion however, prevents millions of children from getting the understanding and support they really need.

From this point, I question what function “ADHD” serves at the level of the school and how it may operate in relation to its objects: particular children who display particular kinds of behaviours. In other words, I consider how the construct ‘installs itself and produces its real effects’ (Foucault, 1980, p. 97), in order to question whether current approaches to the problem we call “ADHD” is the *best* we can do, or whether children who can be described in these ways could be better served by alternative ways of seeing difference.

The role of the school in the rise of ADHD diagnosis

Most academic literature in the area of education focuses predominantly upon the management of "ADHD" as deviant behaviour and the preservation of institutional equilibrium through mechanisms of student/classroom control (Slee, 1994; 1995). Internationally, the literature demonstrates some consensus towards a prevalence rate of approximately 3% to 6% of school-age children (McBurnett et al., 1993; Augustine & Damico, 1995). Figures in the United Kingdom, due to their use of the ICD-10 classification, are more conservative and the rise in both diagnosis and prescription rates more moderate. Disturbingly, a preponderance towards the DSM-IV classificatory system has pushed Australian prevalence rates closer to those of the US. Research by the Australian Bureau of Statistics has found that due to the increasing prevalence of ADHD, there has been a rise in disability and severe restriction rates which, in peaking at age 5 and remaining steady until age 15, directly correlate with compulsory formal schooling ages (Davis et al., 2001).

Research in the US shows that in the majority of cases teachers are the first to suggest a diagnosis of ADHD (Sax & Kautz, 2003). In 1999, Colorado was the first legislature to require school boards to adopt a policy prohibiting school personnel from recommending psychotropic drugs to students (Kientz, 2004). Other states such as Connecticut followed, passing laws prohibiting 'teachers, counselors and other school officials from recommending psychiatric drugs for any child', however, 'this does not prevent school officials from recommending that a child be evaluated by a medical doctor' (Schmitt, 2001, p. 1).

The mere mention of hyperactive, distractible, impulsive behaviour is often enough to set the "ADHD" ball in motion though (Graham, 2006b). While psychiatrist Andres Martin at the Yale University Child Study Center may argue that 'schools have no business practicing psychiatry' (Martin as cited in Schmitt, 2001, p. 1), he does acknowledge the influence of schools and teachers who tell parents that if they do not medicate their children, they cannot be in the classroom. This also happens in Australia. Earlier this year, a public primary school located in a disadvantaged area of Sydney threatened to formally exclude an eight year old girl unless her mother medicate her for 'suspected ADHD' (Hull, 2006, p. 1). Disturbingly, this occurs more often than one would think – as any visit to a parent support group or on-line chat room will confirm.

UK researchers surveyed teachers and found that factors such as class size influence the perceived incidence of ADHD (Glass & Weagar, 2000). Worryingly, they also found that a high percentage of teachers support the use of medication, even when they *do not* believe ADHD to be a biological condition. This led Glass and Weagar (2000, p. 418) to conclude that, 'the problem may lie in the educational system, not within the child'. Similarly, Lloyd and Norris (1999, p. 514) discuss 'the impact of policy upon the creation of categories in order to attract special resources, funding or personnel' which may encourage teachers to identify 'a child's behaviour as disturbed rather than disruptive if this brings external support or funding'. They ask: 'Can we construct a response that does not deny the experience, does not allocate blame, and allows parents and children to find personal and financial support without resorting to medical diagnoses?' (Lloyd & Norris, 1999, p. 508).

Writing from Australia, I second their question and ask more pointedly: Could it be that the chronic under-funding of public schools and bureaucratic red-tape tying resources and classroom support for underpaid and overworked teachers to disability category criteria is influencing how teachers describe and refer the children in their classes?

The Conclusion on Inclusion

Much of the literature that looks to ADHD in relation to schooling focuses upon what can be done to facilitate the “inclusion” of the ADHD child into the “regular” or “mainstream” classroom (Bradshaw, 1998; Sava, 2000). However, privileging the status quo in this way has led to an emphasis on what adjustments can be made to the child, through medicinal and/or cognitive-behavioural means, leaving pedagogy relatively unaltered. It appears that the residual notion of “a mainstream” means that teachers and schools can stick to one-size-fits-all approaches, deviating only slightly when met by “deviance”.

However conveniently, “deviance” remains the domain of the human sciences and the structural arrangements of traditional schooling encourage teachers to siphon off their “problematic” students to the “experts” of abnormality milling in and around the domain of the school; guidance officers, withdrawal-mode behaviour modification programs, alternative-site placement centres, psychologists, doctors, paediatricians and psychiatrists. In this way, Attention Deficit Hyperactivity Disorder provides a means to maintain institutional equilibrium (Slee, 1995; 2000). This problem is compounded when the majority of educational literature engaging with the concept of ADHD, does so in a way that reinforces normative notions of mainstream, general or traditional schooling.

Despite paying lip service to the era of inclusive education (Stormont-Spurgin, 1997), this is *not* inclusive. In this guise, “inclusive schooling” is subsumed within what Slee (1996, p. 3) calls the ‘rearticulation of special education’, where the ‘voice of inclusion [becomes] an act of special education ventriloquism’ (Slee, 2001, p. 395). Through a discursive sleight of hand, inclusion ‘fails to move beyond technical adjustments to the form of schooling’ (p. 395), or to achieve equity and justice for kids in schools. Slee (1996, p.6) is undoubtedly correct when he argues that ‘the political economy of schooling reveals considerable institutional and cultural impairment in need of remedial intervention’. Surely, the “ADHD” phenomenon is testament to that.

There is a curious tendency in the critical literature towards what I see as a denial of difference. In the effort to avoid essentialising or pathologising children, some in the critical tradition somehow lose sight of the fact that there are kids whose behaviour can be described in these ways. As a mother of a child who fits all these descriptions, I cannot and will not deny that some children are different in a fidgety, distractible way. If we negate this difference, for example by arguing as some in the area of social constructionism do, that ADHD is socially constructed because of how behaviour is “perceived”, then we effectively deny the lived-experiences of millions of men, women and children who are struggling to connect with each other, whose backs are breaking under the strain of loving/working/living with individuals who, try as they might, just cannot seem to do things the way everybody else would like. A proponent of the medical/psychological models may pounce on this declaration and say “See! ADHD *is* real!”, which is probably one reason so many avoid engaging with this tension. However, my argument here is: “So what?” So, there are children who are fidgety, distractible, impulsive and so on... The problem is *not* that such difference exists – but instead what we do about it and, ultimately, whose interests this serves.

Turning to inclusive education philosophy as a transformative politics

Whilst it appears that the discourses and practices of schooling are strongly implicated in the growing problem of “ADHD”, schooling might also be the answer. Or, at least, *a different form of it*. I would argue that the principle focus centring on what is wrong with the individual has been

captured and structured by particular political and economic interests. The lack of synergy between the different areas of research, the failure to pinpoint precisely where the problem is (despite narrowing the focus to the individual) and how “the problem” might best be treated opens a space for a new way of thinking; one that is made possible by the philosophy of inclusive education.

Considering that the incidence and onset of ADHD “symptomatology” is inextricably bound up with the technologies and demands of schooling, then what if those technologies and demands were to change? Unlike “mainstreaming”, inclusive education philosophy argues for a radical re-conceptualisation of schooling. The movement is closely linked with disability studies in education and the inclusion and support of students with disabilities in schools, however, inclusive education philosophy goes beyond the rhetorical practice of placing disabled children in schools and the augmentation of “general” education with “special” education services. An “inclusive” education system recognises that *all* children are different and that one-size-fits-all models result in exclusion and disadvantage.

Rather than medicating growing numbers of children so that they can remain seated in class, we need to change how we teach in schools. Rather than expecting young children to be self-regulating and autonomous (to make life easier for ourselves), we need to support and guide children by modelling these behaviours in our own pedagogical practices. Before we expect children to take responsibility for their own learning, we need to take responsibility for teaching and recognise that some children will need more explicit instructions than others, some will need repetition of instruction, some will need more extensive scaffolding, some will need concrete demonstration of concepts, and some will require that teachers think carefully about what pedagogical methods they can draw upon to more effectively speak to the myriad of talents, abilities and interests in their classrooms (Graham, 2006b). We also need to recognise and accept that this is *normal*.

Rather than realising inclusion (Artiles, 2003) through systems of recognition and division that construct objects to be pitied or burdens to be tolerated to a certain point and then put aside, inclusive schooling needs to move beyond rhetoric. Beyond veneer. Fundamental flaws that plague the education system need to be engaged with in an authentic way. Rather than spending any more research funding on the effects of methylphenidate alone, or methylphenidate + psychosocial treatments or psychosocial treatments alone (Hechtman et al., 2004), whilst neglecting at every turn treatments on the educational system, we need to inject far more into research that investigates the pathologies of schooling and how to fix *them*. At the end of the day, the failure of schools to ‘love the difference’ (Stiker, 1999, p. 11), is everybody’s problem.

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ⁱ A hyperlink to access a media release on Queensland University of Technology's homepage reads "Parents overdose children with medication". The article describes the research into the management of fever by parents, saying 'international studies showed more than 30 per cent of parents overdosed children, while a quarter underdosed youngsters with drugs like paracetamol and ibuprofen - or both. As part of Australia's first study into how parents manage fever in children, Ms Walsh has reviewed 24 years of worldwide research and found mismanagement of fever is a universal trend. She said while little had changed in what parents knew about fever, there was some concern about the new trend of alternating different types of medication'. Problematically, only half-way through the story is it acknowledged that parents do so under medical advice. "A lot of parents are now being advised to give their children paracetamol and then follow up with some ibuprofen maybe two hours later". However, the damage is done and the nurses and doctors giving the advice to parents have been effaced from the scene.

ⁱⁱ This includes CHADD in the US and ADDISS in the UK. These relationships are the subject of a class action suit in the US, see Schmidt (2000).

ⁱⁱⁱ Adderall is not available in Australia.

^{iv} This is a policing system with aims similar to the Schedule II/triplicate prescription system in the US.

^v Despite the wealth of research in speech/language that looks to the effects of language difficulties on behaviour, speech therapy services remain a predominantly private cost. Such therapy is usually ongoing and intensive and out of financial reach for many families – ours included.

^{vi} Number of prescriptions dispensed for dexamphetamine sulfate, 1999-2000 per 1000 population was 43.2 for Western Australia. The next closest state was Tasmania with 16.3 (See Mackey & Kopras, 2001, p. 5).

^{vii} One major flaw in the research that looks to comparative studies of psychological therapy + medication versus medication alone is that comparison of effectiveness against educational intervention alone is rarely done.